PROBLEMS OF PARAMYXOVIRUS IN AUTOIMMUNE DISEASE

R. Caputo

Translation of "Il problema dei paramyxovirus nelle malattie autoimmuni," Giornale Italiano di Dermatologia, Vol. 109, No. 3, 1974, pp. 195-196

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16. Abstract

There are two different interpretations of the nature of the structures similar to paramyxovirus found in the tissues of patients suffering from autoimmune diseases: either they are aggregates of viral particles, or they are tubular formations deriving from the E.R. Although it seems to have been proven that these are not viral particles, the structures have been found very frequently in certain autoimmune diseases, thus leading some authors to believe that they reflect the presence or the ability to produce immunoglobulins.

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Milan

The finding of structures similar to paramyxovirus in /195* tissues of patients suffering from systemic erythema and other autoimmune diseases and the interesting hypothesis of their possible viral etiology has aroused the interest of numerous investigators also in the field of dermatology.

It should, however, be kept in mind that these structures have been observed in animal species as well as humans, in diseases quite different from each other, and also in normal tissues.

Based on data from the literature and in particular on the recent work by Urman et al., I am presenting here some tables of considerable significance.

Concerning the nature of these structures, there are two different interpretations: either they are aggregates of viral particles, or they are tubular formations deriving from the E.R.

The fact that the filaments of paramyxovirus (according to Pinkus and Uzman) are smaller, that these structures have been found in normal tissues, and above all that they can not be cultured, are against the viral hypothesis. In addition, immunoelectromicroscopic studies with antibodies labeled with ferritin have shown that the antibodies localize in conjunction with the basal lamina and not the virus-like structures. Many biologists, virologists and pathologists support the second /196 hypothesis, and recent studies by Beringer et al. containing high-resolution microphotographs have shown that these structures

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*Numbers in the margin indicate pagination in the foreign text.

would simply be invaginations of the E.R., anastomosing between each other.

The differences in the appearance of these structures: more or less crowded, or tubular, or paracrystalline would depend on various factors (animal species, tissues or cells involved, and above all the fixation procedure).

The fact remains however that, although it appears to be proved that they are not viral particles, these structures are found very frequently in certain autoimmune diseases, thus leading certain authors to believe that they reflect the presence or the ability to produce immunoglobulins.

(The full report will follow.)

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V.A. Puccinelli

I thank Professor Leigheb for his clear and exhaustive report on a subject that concerns us all, since many of us use it in our daily activity in the fight against syphilis.

You know that the speaker has devoted many years to the study and improvement of syphilis serology, and today it is possible to appreciate the progress since 1943, when a new era in the serology and fight against syphilis was begun with Mary Pangborn's cardiolipin and with the introduction of the treponemic antigen.

I also thank all those who took part in the discussion.

And now I should like to summarize this meeting; I believe it has been quite positive.

It is clear from what has been presented and discussed here that immunofluorescence techniques are difficult and the techically oriented speakers here well illustrated these difficulties, showing the best ways of overcoming them; and that the techniques are fully valid. These techniques will become more and more widespread, will find ever increasing scientific and diagnostic applications, also in the field of our specialty, and will gain more and more interest and practical use; this is confirmed by the reports from the clinical section.

These techniques will of course be carried out by a few specialized laboratories and specially trained technicians but, as happens with other complex techniques (such as Nelson's test), they will come into our hands, and we must be able to evaluate their practical, diagnostic and therapeutic significance, as well as their scientific import. I am sure that all those who took part in this round-table discussion -- and there were more than I had expected -- will now be able to interpret a report of this reaction.

This would be sufficient to justify the trouble we have taken as organizers.

But, more than the work done, I believe that the future results of this discussion are of importance; one report, one round-table, do not constitute the end-point, but usually are a starting point on which to build. I am sure that, from this viewpoint, our meeting has been a success.

Next year we will hear again about the methods of which we have heard today, and we will see their first applications to one of the most interesting and important chapters of today's dermatology: the autoimmune dermatoses.

All of you realize the importance and significance of this subject, which clarifies obscure and controversial aspects of our specialty. We have still a long way to go, but eventually dermatology, clinical, diagnostic, prognostic, scientific and therapeutic, will have made a great leap forward.

Before closing the meeting, I wish to thank all those present, and above all those who took direct part in the round-table and who have allowed us to update ourselves in a field on which tonight we know much more.

I am sure that I am interpreting the feelings of all of you by once more thanking Prof. Cormane, Prof. Thivolet, who came from so far away to enlighten us with their knowledge, Prof. Carbonara, whom Italian dermatology shall remember from today on with respect and sympathy, and our colleagues Giannetti and Leigheb for their troubles.

The meeting is closed.